

Chuck Stephens MDNR

NPL NARRATIVE SUMMARY DRAFT

ORONOGO-DUENWEG MINING BELT
Jasper County, Missouri

Mike M. P. L. M. C. S.

Site	Oronogo-Duenweg
ID #	110098068628
Break	1/8
Other	EG-37 K
	11-30-87

The Oronogo-Duenweg Mining Belt is located in Jasper County, Missouri and comprises a portion of the Tri-State Mining District of Missouri, Kansas, and Oklahoma. Two other Superfund sites in the district, Cherokee County in Kansas and Tar Creek in Ottawa County, Oklahoma were placed on the NPL in September 1983. Superfund financed remedial activities are ongoing at Tar Creek and Cherokee County. ~~Negotiations are underway with a group of potentially responsible parties to conduct future remedial activities in Cherokee County under an enforcement agreement.~~

Lead and zinc ores, as well as some cadmium ores, were mined, milled and smelted throughout Jasper County from 1848 to the late 1960s. Mining efforts were originally performed by small independent companies which were later organized into larger mining operations.

Abundant mining activities occurred in an area of 2 by 10 miles between Oronogo and Duenweg, northeast of Joplin, Missouri. The area is honeycombed with underground workings, pits, shafts (open, closed, and collapsed), mine tailings, waste piles, and ponds holding tailing waters. This area was the focus of an initial investigation which identified the release of hazardous substances. The Agency will initiate a Remedial Investigation/Feasibility Study in 1990. At that time the actual extent of contamination ~~and its~~ ^{boundaries} will be determined.

The Jasper County portion of the mining district contains many abandoned underground mine workings and the land surface in many parts of the county is covered with an estimated 10 million tons of mining wastes. Release of contaminant metals (principally cadmium, lead, and zinc) to ground and surface waters is occurring at the site. Studies conducted by the U.S. Geological Survey (1977) concluded that ground and surface waters are contaminated with lead, cadmium, and zinc. An estimated 1,500 people obtain drinking water from private wells within 3 miles of the site.

The primary sources of contamination ~~appear to be~~ ^{are} from residual metal sulfides in the abandoned mine workings and tailing piles which were left uncovered and unstabilized. Upon exposure to the atmosphere these metal sulfides mobilize as dissolved compounds which increases acidity. The resulting metal-laden acidic waters referred to as acid mine drainage, contaminates ground water, fills mine shafts and subsidences, and when surfacing through springs combines with metal-laden surface water runoff resulting in contaminated ground water, as well as rivers, creeks, and lakes.

40110730



SUPERFUND RECORDS

JOHN ASHCROFT
Governor

FREDERICK A. BRUNNER
Director



Alice

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Park, Recreation
and Historic Preservation

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

November 30, 1987

Mr. David A. Wagoner, Director
Waste Management Division
U.S. EPA Region VII
726 Minnesota Avenue
Kansas City, KS 66101

RECEIVED

DEC 01 1987

SUPERFUND BRANCH

Dear Mr. Wagoner:

This is in regard to EPA's intention to propose the Oronogo-Duenweg Mining Belt, a mining site, for the National Priorities List (NPL). You had requested that we provide information on the availability of Surface Mining Control and Reclamation Act (SMCRA) funds for this site.

The State of Missouri does not intend using funds from SMCRA to clean up the Oronogo-Duenweg site, nor will we use the funds for remedying similar non-coal related problems in the state.

Sincerely,

DIVISION OF ENVIRONMENTAL QUALITY
ORIGINAL SIGNED BY
WILLIAM C. FORD

William C. Ford, P.E.
Director

WCF jsk

cc Mr. Robert Morby, EPA ✓

X

National Priorities List

Superfund hazardous waste site listed under the
Comprehensive Environmental Response Compensation and Liability Act (CERCLA) as amended in 1986

ORONOGO-DUENWEG MINING BELT Jasper County, Missouri

The Oronogo-Duenweg Mining Belt is in Jasper County, Missouri, and is considered part of the Tri-State Mining District of Missouri, Kansas, and Oklahoma. Two other sites in the district--Cherokee County in Kansas and Tar Creek in Ottawa County, Oklahoma--were placed on the NPL in September 1983. Superfund-financed remedial activities are under way at these two sites.

Lead and zinc ores, as well as some cadmium ores, were mined from 1848 to the late 1960s, with the greatest activity occurring in an area of 2 by 10 miles between Oronogo and Duenweg, northeast of Joplin. Mining efforts were originally performed by one- to two-man independent operations that in later years were organized by several area mining companies.

X The site is honeycombed with underground workings, pits, shafts (open, closed, and collapsed), mine tailings, waste piles, and ponds holding tailing waters. An estimated 10 million tons of wastes or tailings are on the site.

Throughout the mining era, ground water had to be pumped to prevent flooding of mines. When mining ceased, the shafts and underground workings filled with water. Tailing piles have been left uncovered and unstabilized. Leachate and run-off from the piles can enter open shafts and pits.

Ground water and surface water on the site are contaminated with cadmium, lead, and zinc, according to tests by the U.S. Geological Survey in 1977. An estimated 1,500 people obtain drinking water from private wells within 3 miles of the site.

This mining site is potentially eligible for cleanup funds from the State of Missouri's approved program under the Surface Mining Control and Reclamation Act of 1977 (SMCRA). EPA is developing a policy for listing such sites. This site is being proposed for the NPL at this time to avoid delay in starting CERCLA activities.

Narrative Summary

Shelley W

Alice,

Re: Ononogo-Duenweg Site Boundaries

Bob Myers, HQ (RTS 475-0,02) said that we could discuss this in the responsiveness summary. We need to be sure that we send our comments to MIRKE (cc Rob Myers) to ensure they're included in the responsiveness summary.

Suggested wording: The boundary or line that appears in the HRS package does not represent a geographic area; it represents an initial investigation. This investigation tries to identify a release of hazardous substances, or the threat of a release. The Agency conducts a HHS to determine if the area is more intensive. We determine the actual extent of contamination at this time, not at the time of NPL listing.

Rob encouraged us to submit whatever wording is appropriate when a major issue such as this, is a concern. He also reminded me that the Agency discusses this issue in every preamble (of the Federal Register) with each NPL addition.

I suggest that we send a letter to Mirke now while they are still writing the response to comments and emphasize the boundary issue.

Shelley

cc: Mari Bogina

Mark - I am very concerned about the boundaries for Ononogo. The only reason the 2 mi x 10 mi area was used is because that is where the data was for NPL listing. The whole Taspico site needs to be investigated. Therefore, the narrative description should state that the 2 x 10 mile ~~area~~ was used for ~~investigation~~ listing purposes ~~only~~ at the full site needs investigation to evaluate the full extent of contamination. Please review the narrative & refuse to explain no boundaries at time of listing.

Alice 12-4-89

Have the response to comments
please call me if

Pink

OCT 12 1989

Mr Fred Price
Mitre Corporation
1820 Dolley Madison Boulevard
McLean, Virginia 22102

Dear Mr Price

Re Telecommunication with Raymond Lawrence,
Superintendent, Webb City, Missouri Water Department

Fred Price, MITRE, contacted me on October 2, 1989, regarding comments he received on the HRS scoring package for the proposed Oronogo-Duenweg Superfund site. The site was scored primarily on the release to ground and surface waters of contaminant metals derived through oxidation of mine tailing piles found throughout Jasper County, Missouri. A commentor had suggested that since the time the site was scored, water distribution lines have been built, allowing all residents within and nearby the site access to an uncontaminated water supply.

I contacted Raymond Lawrence, the Superintendent for the Webb City, Missouri Water Department. Webb City lies within the proposed Oronogo-Duenweg site boundary. Mr Lawrence stated that there has been no expansion of any water district boundaries to serve those residents living in the unincorporated areas within and nearby the site. Subsequently, those residents still must utilize the contaminated shallow aquifer as their sole source of drinking water. As such, the HRS score given for ground water use is correct as stated.

Sincerely yours,

Mark Bogina
Remedial Section
Superfund Branch
Waste Management Division

WSTM SPFD REMD Bogina du Bogina Disk - MITRETEL 10/12/89

REMD
Bogina

REMD
Wright

mark B

Re Finalization of proposed sites on the NFL

Alice

Barry Nash provided a status report and alerted me that HQ directed MITRE to prepare the Support Document by Dec 71 regardless of site status. Sites with unresolved issues were to be left blank. There will be a stop date at some time for finalizing these sites. At this time, contrary to our wishes and the data we are sending to MITRE, Sheller-Globe is listed as dropping off the NFL. Barry said the pressure is coming from higher than Penny (Hansen, Branch Chief) possibly Longest to get the sites finalized or dropped.

I contacted Bob Myers, HQ, who agreed with the above statement. But said if they received the data in time, they would direct MITRE to rewrite the support document. I asked Bob why the Regions are not being informed as to individual status of sites which ones may fall off simply due to lack of time for MITRE to finish support document and how many final rules were left. He could only tell me that 1 or 2 additional final rules will occur. The Dec 71 stop date applies to all sites except those proposed in Update 10 (Columbus FWS, Westlake and Former NL Ord. Wd. 1st). Final Rule 9 will cover the federal sites. All other sites, especially ones with policy issues, will fall on the last update whenever that will occur.

We need to alert the FFMs to keep MITRE and HQ involved with their sites. I recommend we cc Bob Myers or Sandy Crystal (NE-270) HQ in all MITRE correspondence to keep HQ in the loop. The following sites have outstanding issues:

Summers Mutual - This has been pushed back to the final rule because the HW Pesticide office wants to review the package and determine any implications for that program. DEER hopes their review will be favorable and we may only have to revise the package to delete carbon tetrachloride and chloroform. We may have to fight the Pesticide Office if they completely oppose listing the site.

Fairfield - at this time, it appears OK, but needs MITRE needs additional info from the FFM to write the support document to finally list the site.

White Farm - at this time, it appears OK. I encourage the FFMs to get this assurance from MITRE.

Quail Run - HQ needs our position paper and our decision regarding final listing. If we decide not to list this is harder for them to defend, hence they need more time to write the support document and get OCC's review. Their concern is that the decision won't affect ATSDR's ability in the future to list sites using the health advisory criteria.

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NWSFCC and Lehigh - It appears that technical issues are resolved but HQ is still dealing with the special study waste issue HQ is trying to decide on policy for these dust sites We need to keep in contact and help get a favorable resolution

Oronogo-Duenweg - Barry was not familiar with the issues at this site, we need to contact Rick Webster, HQ

MEW - It appears that this site will go final (possibly simply because it is already in OMB while MITRE still deliberates the aquifer connection issue HQ doesn't want to look bad by pulling it out now, and they side with us on this issue

E I Dupont - same aquifer issue as above, still not resolved MITRE has not come to the same conclusion as Region VII HQ may need further intervention I recommend the RFM stay in contact to ensure issue resolution

OTHER ISSUES

HQ does not have a copy of the narrative summary for Weldon Springs Ordnance Works (Bob took this with him to HQ, nor do they have our response to comments They are having OGC look at their draft I suggest we give them a copy of our narrative and support document into to get the wording that reflects Region VII's position

Estt & Mead Looks like final rule will occur in Jan during my absence For Ken's request, we arranged for him to contact HQ weekly to check on promulgation status Ken wants to inform the state and the steering committee prior to promulgation This is the only way HQ can ensure we'll have sufficient advance notice for her

We need to arrange for someone to distribute Final Rule material (in January) during my absence

cc RLM
Section Chiefs

PURPOSE Inform members of Congress, the press, and the general public of current information on sites

Attachment #1

INSTRUCTIONS FOR PREPARING NARRATIVE SUMMARIES

Each narrative summary must be limited to one page (double spaced) Include the following

- 1 Site name
- 2 Site location - municipality/city/county and State (not directions to the site)
- 3 Important demographic and geographic information
- 4 Size of site (acreage)
- 5 Nature of business (landfill, recycling, manufacturing, etc)
Is site permitted? By whom? For what?
- 6 Wastes present
- 7 Affected media
- 8 Ownership - private, public, bankrupt (currently operating, how long - currently closed, how long)
- 9 Cleanup actions or scheduled actions (must be confirmed by responsible parties or State/local governments)
- 10 Actual enforcement actions taken against responsible parties (clear all enforcement-related material with the Regional legal staff)

Since the summaries are public documents and part of the site-specific legal docket, they must be carefully worded Specifically

- 1 Do not use words like "illegal "
- 2 Describe prospective response actions only if they have been definitely scheduled
- 3 Avoid jargon and use technical terms sparingly When using technical terms, explain their significance -- for example, "the soil is alluvial, which favors the movement of ground water "
- 4 In writing the summaries, use active voice as much as possible and identify the action -- that is, say "EPA erected a fence," not "a fence was erected," or "the State filed a suit," not "a suit was filed "

The narrative summaries will be edited by EPA Headquarters' staff to assure clarity, conciseness, and national consistency With careful adherence to the instructions, changes to the summaries will be minor Examples of appropriate summaries are attached

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The site is honeycombed with underground workings, pits, shafts (open, closed, and collapsed), mine tailings, waste piles, and ponds holding tailing waters. An estimated 10 million tons of wastes or tailings are on the site.

Throughout the mining era, ground water had to be pumped to prevent flooding of mines. When mining ceased, the shafts and underground workings filled with water. Tailing piles have been left uncovered and unstabilized. Leachate and run-off from the piles can enter open shafts and pits.

Ground water and surface water on the site are contaminated with cadmium, lead, and zinc, according to tests by the U.S. Geological Survey in 1977. An estimated 1,500 people obtain drinking water from private wells within 3 miles of the site.

This mining site is potentially eligible for cleanup funds from the State of Missouri's approved program under the Surface Mining Control and Reclamation Act of 1977 (SMCRA). EPA is developing a policy for listing such sites. This site is being proposed for the NPL at this time to avoid delay in starting CERCLA activities.

National Priorities List

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ORONOGO-DUENWEG MINING BELT Jasper County, Missouri

Conditions at listing (June 1988) The Oronogo-Duenweg Mining Belt is located in Jasper County, Missouri, and comprises a portion of the Tri-State Mining District of Missouri, Kansas, and Oklahoma. Two other Superfund sites in the district, Cherokee County in Kansas and Tar Creek in Ottawa County, Oklahoma, were placed on the NPL in September 1983. Superfund-financed remedial activities are ongoing at these sites.

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The primary sources of contamination at the site are residual metal sulfides in abandoned mine workings and tailing piles that were left uncovered and unstabilized. Upon exposure to the atmosphere, these sulfides mobilize as dissolved compounds, increasing acidity. The resulting metal-laden acidic waters, referred to as acid mine drainage, contaminate ground water and fill mine shafts and subsidences, when the waters surface through springs, they combine with metal-laden runoff and contaminate rivers, creeks, and lakes.

Studies conducted by the U.S. Geological Survey (1977) concluded that ground water and surface water are contaminated with lead, cadmium, and zinc. An estimated 1,500 people obtain drinking water from private wells within 3 miles of the site.

Status (May 1990) EPA plans to conduct a remedial investigation/feasibility study to determine the type and extent of contamination in Jasper County and identify alternatives for remedial action.